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ABSTRACT

This monograph treats collaboration between the university and the professions, both conceived as organizations that interact to achieve specified goals. It is part of the Continuing Professional Education Development Project, a five-year research effort to develop practice-oriented continuing professional education programs through collaboration between The Pennsylvania State University and six selected professions. The paper draws upon interorganizational relations theory for the concepts that undergird the notion of collaboration and moves to a less abstract level to present a model and a process for achieving the goals of collaboration. The paper has three parts. The first part is a development of the conceptual issues dealing with collaboration, cast into an interorganizational relations context. This part is followed by a definition and a model for collaboration, using the university and the professions as the two interacting organizations with the development of continuing professional education programs as the common goal. The third part describes an ongoing project that uses the model. A bibliography is included. (KC)

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# A MODEL AND PROCESS FOR

# UNIVERSITY/PROFESSIONAL ASSOCIATION COLLABORATION

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June, 1981

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- To establish collaborative relationships between the University and the professions in order to strengthen the development and implementation of continuing professional education programs
- To develop and implement practice-oriented continuing professional education programs through the application of the Practice Audit Model to six selected professions
- To develop models of the University/profession collaborative relationship for continuing professional education which can lead to its insitutionalization


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This working paper, developed to help focus Continuing Professional Education Development Project staff members' thinking regarding the concept of collaboration, was presented at the National Conference on Higher Education of the American Association for Higher Education March 6, 1981, in Washington, D.C.

## Introduction

This paper is about collaboration--collaboration between the university and the professions, both conceived as organizations which interact to achieve specified goals. The setting for this paper is the Continuing Professional Education Development Project, a five-year effort sponsored jointly by the W. K. Kellogg Foundation and The Pennsylvania State Univerity to develop practice-oriented continuing professional education programs through collaboration between the University and six selected professions. It draws upon interorganizational relations theory for the concepts which undergird our notion of collaboration and moves to a less abstract level to present a model and a process for achieving the goals of collaboration. Since we begin with the notion of systems and organizations, we are entering a difficult area, one that is difficult to think about, read about, and talk about.

As Stafford Beer (1979) has suggested, organizational structures, as viable systems, must be recursive. Our current work is recursive from two points of view: it attempts to build upon previous thinking in the area, and it will also build upon the experiences we are gaining as the collaborative project with which we are involved unfolds. The key notion in our recursive thinking is change--change which is developmental and integrative. Thus, what follows represents our preliminary thinking, to be tempered by criticism and the realities of our collaborative project. Of necessity, this paper has a beginning and an ending, but it is only the first chapter of a story which has yet to be written.

In proceeding from the abstract to the concrete, which is the

method we have chosen, this paper begins three times. Hence it has three parts. The first is a development of the conceptual issues dealing with collaboration, cast into an interorganizational relations context. This part is followed by a definition and model for collaboration, using the university and the professions as the two interacting organizations and the development of continuing professional education programs as the common goal. The third part describes an ongoing project which uses the model. Each part can be viewed separately because each presents a valid way of examining collaboration. However, by presenting them together we are hoping to demonstrate the recursive interplay of conceptualization and practice which led to our current thinking and which will form the basis for further developments.

## Consideration of the Concepts Related to Interorganizational Relations

Relationships between organizations can be examined at various levels of abstraction. In this section we address some of the important issues involved at one such level—the conceptual one. To a large extent, the material presented is based on a review of relevant empirical and theoretical research. It must be stressed, however, that we have not developed nor are we offering a theory of interorganizational relations or collaboration. Rather, we have gone to the available literature in an attempt to identify key elements that might be used as tools to improve our understanding and guide us in our attempt to create university/professional association collaborative arrangements.

With this qualification in mind, we have identified five issues that we believe need to be considered and addressed in any attempt to build relationships between organizations: (1) the form of interaction, (2) the climate and preconditions, (3) determinants, (4) the agreement, and (5) the linkage mechanism. Each of these will be addressed in each of the three sections of this paper: the first section on the concepts, the second on operationalization, and the third on application of the model. Figure 1 shows the progression of each of the five issues through the three levels of consideration. Our first discussion of these issues is on a conceptual level.

### Forms of Interaction

Interaction between organizations is a complex phenomenon. No one form can adequately represent the potential range of possibilities.

| Conceptual Organization | | |
|---|---|---|
| Conceptualization → | Operationalization → | Application |
| A. Forms of Interaction | A. Form of Collaboration | A. Form of Collaboration |
| Interaction as Continuum | Definition<br>Goals | Practice Audit Model |
| B. Preconditions of Interaction | B. Climate | B. Foundation |
| Organization/Environment Interaction<br>Organizations as Open Systems | Resource Scarcity<br>Accountability | History of CPE at Penn State<br>Developments in Professional Associations |
| C. The Bases of Interaction | C. Motivation/Determinants | C. Search for Appropriate Organization Bases |
| Motivations<br>Determinants | Selection Process and Criteria | Initiation<br>Exploration |
| D. Components of Formal Interaction | D. The Agreement | D. Establishment of Agreement |
| The Agreement | Elements<br>Practice Audit Model | Commitment Process<br>Selecting Profession Team Members |
| E. The Interaction Process | E. Linkage Mechanism | E. Creating a Linkage Mechanism |
| Linkage Mechanisms | Project Staff<br>Profession Team | Group Process Consultant<br>Making the Mechanism Work |

Figure 1

Relationships Between the Three Levels of Abstraction for Examining Collaboration

Instead, interorganizational relations can best be conceived as a continuum, with one pole represented by complete organizational independence and the other by the merger of organizations (Guetzkow, 1966). Between these two poles, numerous points of interaction can be identified, although most discussion centers on three: cooperation, coordination, and collaboration. In general, these can be defined as follows. Cooperation refers to organizations assisting one another on an ad hoc basis (Whetten, 1981). Coordination refers to organizations ensuring ". . .that their activities take into account those of other organizations. . ." on a consistent basis (Hall et al., 1977, p. 459). Collaboration refers to organizations working together jointly and continuously on a particular project towards a specific goal. These are all forms of interaction, but their distinctiveness is determined by the values they take on three matters: the nature of the resources utilized, the kind of time required for interaction, and the specificity of goals. As one moves from cooperation through coordination to collaboration, the value of the resources required usually increases, the formal commitment of time increases, and goal specificity increases.

Each of the forms of interaction noted above can vary on other dimensions as well. Interaction should provide benefits to each of the organizations involved, but the nature of their distribution is variable; they can accrue symmetrically with each party receiving equal benefits or they can accrue asymmetrically (Guetzkow, 1966). Which organization guides or acts as a catalyst for the interaction process is also an open question: organizations may interact without much guidance, thereby mutually adjusting to one another; each organization may contribute to the guidance; or a separate body may assume

responsibility for activating and maintaining interaction between two organizations. Also, the interaction may be mutually agreed to or not; that is, voluntary or mandated (Marrett, 1971).

Interorganizational relations are complicated matters. Depending on the values that different "variables" take, different forms of interaction may be most useful. Organizations striving to bring about interaction must be conscious of these matters in developing the most appropriate form of interaction for them.

The literature also points indirectly to some major problem areas in interorganizational relations. One is the matter of organizational autonomy (Negandhi, 1975; Schermerhorn, 1975; Whetten, 1981). As one moves through the interorganizational continuum from cooperation to collaboration, the autonomy of the interacting organizations becomes increasingly restricted on particular issues which can represent a significant cost to the organizations. Another problem area is that the interaction between two separate entities has a high risk of activating conflict over such matters as resources, goals, or procedures. Finally, the interorganizational relationship process normally has no predetermined structure of authority for resolving matters of dispute (Litwak and Hylton, 1962; Negandhi, 1975). Given the potential for these difficulties to disrupt or even halt the interaction process, these issues must be dealt with through the process of developing appropriate organization identification procedures, agreements, and linkage mechanisms--matters which will be addressed in the remainder of this presentation.

Climate and Preconditions

Knowing that interaction between organizations can take different forms does not help us understand why they would interact in the first place. This raises the second issue--the climate and preconditions necessary for interaction. One way to approach this question is to utilize a perspective on organizations that helps us to understand why organizations might need one another. Organizational research in the past focused predominantly on individual organizations; the view often taken was that the organization was an entity which sought to achieve maximum autonomy by cordoning itself off from the general environment and other organizations. Explaining the behavior of the organization involved understanding the machinations which occurred within this closed system (Kast and Rosenzweig, 1972). More recently there has been a growing recognition that viewing organizations in this closed way does not provide for adequate explanations of organizational behavior. Organizations may indeed strive for complete autonomy, but their ability to attain it is severely limited. Thus a more fruitful way to conceive of organizations is as open systems. From this perspective, organizations are seen as systems that constantly interact with their environments--obtaining energy and other inputs from the environment, transforming these into products, and then distributing the products to markets in the environment (Kast and Rosenzweig, 1972; Katz and Kahn, 1966).

There are numerous aspects of the application of open systems theory to organizations that could be discussed. The most important point for the purposes of this discussion, however, is that the open systems perspective allows us to see that organizations are dependent on

their environments to greater or lesser degrees at two levels: those of social forces in general, and of other organizations in particular (Clark, 1965). As a consequence, when an organization's environment changes, it must find ways to adapt to the changed conditions to maintain its effectiveness or simply to survive. The more drastic the change in the environment, the more fundamental must be the change in the organization. In most cases, of course, it is the subsystems, rather than the entire organization, that adapt to the new environmental conditions. Organizational adaptation does not necessarily take the form of intimate interaction with another organization. However, recognition of the organization's openess and dependence on the environment provides a basis for understanding what may contribute to an organization's choosing or being forced to interact more closely with other organizations in its environment.

Bases of Interaction

The open systems perspective indicates that organizations are routinely dependent on their environments and other organizations, and that changes in the environments often force organizations into adaptive behavior. But organizations can interact without developing strong bonds, and as just noted, adaptive behavior need not involve significant ties. Given this situation, what leads any one organization to interact with particular organizations and what could lead it to activate a more confining form of interaction than simple mutual adjustment? This raises the third issue to be addressed--the necessary bases for significant interorganizational relations (Schermerhorn, 1975). There are two levels of bases for interaction; the first

concerns the basic motivators that at least make interaction potentially attractive and the second, the specific determinants which make the interaction compelling.

Two motivators for interorganizational relations are most often mentioned in the literature. One is resource scarcity (Aiken and Hage, 1968; Molnar, 1978; Reid, 1970; Schermerhorn, 1975; Silverman, 1975; Whetten, 1981). Organizations require resources to produce products and accomplish goals. If an organization's resource supply is disrupted or becomes inadequate, the organization may develop an interest in adaptive behavior leading to ties with organizations that control relevant resources. The other basic motivating force is the existence of common goals (Litwak and Hylton, 1962; Schermerhorn, 1975). Organizations attempting to achieve similar ends in a general sense are much more likely to consider the establishment of relationships a positive benefit than are organizations working to achieve substantially different ends. Thus there must be some factor that establishes partial interdependence between particular organizations, motivating or activating an interest in strengthening the bonds.

Organizations motivated to establish relationships do not necessarily do so; that is, motivation is a necessary but not a sufficient condition (Litwak and Rothman, 1970; Marrett, 1971; Schermerhorn, 1975). Interorganizational relations involve substantial costs such as decreased autonomy and heavy resource commitments. To make these bearable, organizations usually must be influenced by more than a general interest or motivation initiated by environmental or other forces. The determinants which propel organizations from interest to active relationships constitute the second level of bases for

interorganizational relations.

Determinants are factors that make interaction between two particular organizations particularly attractive or compelling. Several illustrative categories of determinants can be noted. First, organizations that are willing to interact closely must be compatible. At the general level of motivation described above, this means that the organizations have common goals. But at the determinants level, this means that the organizations cannot have exactly the same operational objectives since organizations that do will find themselves in conflict over such things as resources and clients (Reid, 1964). Instead there must be domain consensus, where each organization recognizes and accepts the other's right to a particular set of activities (Levine and White, 1961). If these activities are complementary rather than identical, cooperative interaction is much more likely. Second, if interaction is to be voluntary, each organization must perceive that it can receive something of value from the exchange relationship. Thus an important prerequisite for establishing significant interorganizational interaction may be the existence of complementary resources to be exchanged (Reid, 1964, 1970). Third, each organization must have extra resources available to contribute to a relationship (Aiken and Hage, 1968; Reid, 1964; Litwak and Rothman, 1970). As noted earlier, interorganizational relations can be costly; organizations which cannot spare the cost are least likely to become involved. Thus at the motivational level an organization must suffer from some sort of resource scarcity; at the determinants level, it must have other resources available to contribute to the relationship.

Agreements

Identifying organizations that are potentially capable of establishing significant relations does not mean that the relationship will occur. Some sort of agreement is often necessary to acknowledge the relationship, establish basic understanding, and reduce the chance of conflict once interaction is underway. This agreement is the fourth issue to be considered. The nature of the agreement can vary considerably, and several aspects need to be addressed. One is whether the agreement should be highly formalized or whether implicit understandings will suffice (Marrett, 1971). Another is the organizational level at which the agreement should be reached. Must organization executives be involved or can subcomponent representatives assume this task?

The agreement represents a commitment on the part of each organization and consists of several elements which can vary considerably. Of major importance are the resources required, the character of the units being exchanged, and the direction of the exchange. The primary issue with regard to resources is the extent or intensity of the resource commitment (Marrett, 1971; Reid, 1970). The character of the units being exchanged refers to the degree to which they are standardized (Marrett, 1971). And the direction of the exchange indicates whether units will be exchanged in both directions, that is symmetically, or primarily in one direction, asymmetrically.

The nature of the agreement and the character of the elements of the agreement must be addressed at this phase of interaction. Even more important for those attempting to make such agreements is that these two factors are intimately connected. The character of the elements being

committed affects the nature of the agreement that can and should be reached (Marrett, 1971). For example, the amount of resources usually is viewed as the most important element. As a result, the greater the resources to be committed, the greater the likelihood that a formal agreement will be required and the higher the organizational level at which the commitment must be made. This suggests then that initiating organizations can develop efficient strategies to bring about agreements by carefully considering the character of the elements that will be required of the commitment.

Linkage Mechanism

This brings us to the fifth issue to be considered in any effort to bring about systematic interorganizational relationships. The agreement phase is crucial for interaction but it only provides a setting. It does not ensure that interaction will occur; the agreement is not the actual linkage between organizations. The transaction process whereby exchange occurs represents a distinct phase of interorganizational relations and must be addressed.

Consideration of the nature of the linkage between organizations takes place within the context of the form of interaction. As previously indicated, interaction between organizations can be characterized as a continuum with independence at one pole, merger at another, and various forms of interaction such as cooperation, coordination, and collaboration between the two poles. Within each of these forms, transactions or linkages occur. Just as the forms of interaction can vary, so can the nature of the transaction. There can be an extremely structured linkage; who is to be involved, what is to be

involved, and how the transaction occurs all may be precisely specified. In essence, there are fixed rules governing the entire transaction that make it a very formalized process. On the other hand, what specifically is to be contributed, by whom, and how may be loosely defined. There may be no fixed rules of operation or decisions about how to proceed during the transaction process. In essence, this linkage is more collegial than the first type (Litwak and Rothman, 1970; Reid, 1970).

The choice of the most appropriate type of linkage mechanism is not merely a matter of random selection. Just as particular elements help determine the best form of agreement, so they help determine the most appropriate form for the transaction process. Such factors as the standardization of the units being exchanged, the amount of resources, and the number or organizations involved influence the type of transaction process to be used (Litwak and Rothman, 1970; Reid, 1970). Any two organizations can structure the transaction process any way they choose. However, the elements of the process do place constraints on what is possible and these must be considered when attempting to identify the most appropriate type of linkage mechanism.

At the beginning of this section we noted that all forms of interorganizational relations have a high potential for conflict, partly because they decrease organizational autonomy and often lack a structured form of authority to resolve conflict. The importance of these factors becomes apparent when considering this transaction phase of interorganizational relations. When the transaction can be highly formalized, the potential for conflict is reduced since agreement has been reached on a number of issues and authority exists in the form of fixed rules. However, when the linkage mechanism or transaction is more

collegial, the potential for conflict remains high and no clear cut authority exists to resolve conflict and keep the transaction process moving. In this situation, it is helpful to build in a device, method, or structure that can reduce the number of points on which there can be disagreement, thereby preventing the transaction process from becoming paralyzed.

Summary

We have identified five conceptual issues which help to describe how relationships are formed between organizations. The form of the relationship may range from independence through merger; we have focused on collaboration, a form of interaction which lies between these two endpoints. The preconditions of interaction, or the relationships of organizations and their environments, help us to understand why organizations may need to change and establish relationships with other organizations. The bases of interaction are the specific motivators and determinants which lead an organization to establish a close relationship with other organizations. An agreement publicly acknowledges the interactive relationship in a formal or informal way. Linkage mechanisms define how the interaction will occur. These concepts provide the basis for our view of interorganizational collaboration.

## Operationalizing the Concepts: The University/Profession Context for Collaboration

In the preceeding section we have developed the concepts which provide the basis for our view of collaborative agreements between organizations. In this section, we begin to operationalize the five key issues, as shown in the middle column of Figure 1, by recasting the concepts in terms of interaction between the university and the professional associations. We will do this by examining university/profession relationships in terms of the form they take in our project, the climate for and determinants of collaboration, the agreement to collaborate, and the linkage to achieve collaboration. We have particularized our model and purpose of university/profession collaboration through a process designed to develop and implement continuing education programs for members of selected professional groups.

### The Form of Interaction Between the University and the Profession

Discussion of the particular concern we have with interorganizational relations involves moving from the notion of interaction as a continuum to specification of the form and purpose of our present model of university/professional association interaction. We, in fact, have selected collaboration as the form of interorganizational relationship we want to establish. Implicit in our desire to achieve this form of a relationship is the belief that in appropriate circumstances two organizations working closely together will realize a more useful outcome than will either organization working together in an ad hoc fashion or alone.

But what is collaboration? We view collaboration as a special case of interorganizational interaction for the purpose of achieving very specific goals--goals which are common to the collaborating organizations as well as those which are specific to the collaborating organizational subsystems. We further view collaboration as being symmetrical with regard to the perceived and actual benefits, with regard to resource commitment, and as voluntary rather than mandatory. The control or authority for the collaborative activities can best be characterized as an alliance, a structural form of coordination without the authority of a hierarchy (Whetten, 1981).

At an organizational level, we define collaboration as an agreement between two or more independent organizations to achieve one or more goals common to the organizations and one or more of their subsystem goals. This agreement, carried out by the respective subsystems of the organizations, (a) specifies the method and time frame to achieve the goals, (b) provides a significant commitment of monetary and other resources to achieve the goals and (c) provides a structure for minimizing potential conflict. This rather strict definition of collaboration goes beyond existing definitions or usages.

A better understanding of our notion of collaboration may result from contrasting it with the concept of organization exchange. This concept can be defined as "any voluntary activity between two organizations which has consequences, actual or anticipated, for the realization of their respective goals or objectives" (Levine and White, 1961). Exchange media are clients, labor services, and other resources. The concept of organization exchange describes a relatively static relationship since it deals with previously existing relationships and

goods--nothing is created, and time is not a constraining factor. Our notion of collaboration is dynamic and goes beyond organizational exchange. It involves creating or developing, by the collaborating parties, the relationships and products that are tangible evidence of collaboration in a dynamic environment within a given time frame.

The University and Professional Association Goals

Following modern organization theorists, we view both the university and the professions as open, adaptive systems (Kast and Rosenzweig, 1972; Houle, 1980). Each interacts with its environment or suprasystem by exchanging resources to insure its survival. At this abstract level of analysis, the primary role or goal of a university is the creation and dissemination of knowledge. This primary goal is achieved through three major subsystems which carry out the teaching function, the research function, and the public service function. While there is great deal of literature and a consensus that these are the primary functions of the university, very little attention has been given to a similar analysis of "profession" as a concept. The defining concepts of a profession seem to be changing rapidly as Houle's recent work on dynamic professionalization emphasizes (1980), but the literature lacks a discussion of professions from a systems point of view. Nevertheless, as a first approximation, we will accept Cogan's (1953) view that the primary goal of a profession is "altruistic service to the client." Today, one perhaps should add the word "competent" to the type of service rendered. In our view, the major professional organization functions, which continuously define and help to carry out this primary goal, are (a) monitoring and shaping the profession's

primary orientation, (b) defining and establishing required training for entry into the profession and professional competence, and (c) providing quality assurance, credentialing and continuing professional education.

Thus, we see that universities and professional associations are addressing similar concerns. Each is concerned with ensuring that professionals provide quality service to the public through development of standards and provision of education. We posit as a common goal for their collaboration the development and maintenance of the competency of practicing professionals. The respective university and professional association functions which support this common goal are the university's public service and the profession's quality assurance subsystems. Each of these subsystems, in turn, has specific functions or goals which are articulated in various organizational forms. Examples of the university's public service subsystem goals are (a) to provide quality continuing professional education programs to different professional groups, (b) to develop more effective and efficient methods of assessing the educational needs of different professional groups, and (c) to capture a larger share of the potential market for continuing professional education. Examples of the professional association's quality assurance subsystem goals are (a) to develop a coherent statement of the profession's competencies, (b) to motivate and provide opportunities for professionals to remain up to date, and (c) to develop valid and fair methods for credentialing its professional members.

## The Climate for University/Professional Association Collaboration

We touch now on the question of why the university and the professional associations should collaborate to achieve the common goal

of developing and maintaining the competency of practitioners. For two groups, which have existed somewhat independently for some time, to find cause to move together, some change must occur--an environmental disturbance, in systems parlance. In the case of the university, we see resource scarcity as a disturbance which translates into (a) a diminishing pool of traditional undergraduates in the coming decade, (b) diminishing tax-based support from federal and state governments coupled with a continuing high inflation rate, and (c) an increasing recognition that non-traditional students and funding sources must be pursued to ensure survival. Put positively, we would say that the university is recognizing the need to serve other clienteles and that the "baby boom" bulge in the nation's age distribution is a ripe market for continuing professional education.

From the profession's point of view, the environmental disturbance which can motivate collaboration is the general notion of accountability, evidenced by increasing attacks on the concept of a profession and its members' competency from different quarters. The sources of dissatisfaction and criticisms are (a) internal, pointing out instances of self-protection or political infighting, (b) "consumerism," citing incompetence, lack of client or layperson representation on licensing boards, and (c) government and legal decisions, evidenced by regulations governing "third-party" payments, restraint of issues, and sunset legislation.

Operationalizing the Bases for Collaboration

Since both the university and the professional associations have a direct stake in the competence of practitioners--the university through

its roles in initial and continuing professional education, and the professional association through its need to establish and maintain standards of professional practice—we believe there are both conceptual and operational reasons for their collaboration to deal with a common issue.

The degree to which organizations are aware of or sensitized to the collaborative possibilities that exist can vary however. As noted in the previous section on conceptualization, organizations may actively search for other organizations with which to establish relationships or a facilitative body may serve the role of catalytic agent by bringing organizations together for their mutual benefit. In our project, the office of Planning Studies in Continuing Education has assumed the catalytic role although it is also part of one of the organizations, the University. We feel that this applied research unit, which employs most of the staff working on the Continuing Professsional Education Development Project, is particularly suited to stimulate collaboration since one of the functions of Continuing Education is to provide a link between university academic programs and organizations, such as those in business and industry, which seek education or training programs.

The initial problem in facilitating collaboration is to determine which university and professional association subsystems are most ready to collaborate at this time. Our solution has been the development of a selection process with criteria for assessing the state of readiness for collaboration of candidate professional associations and the academic bases of the university associated with professional training. The objective of the selection process is to achieve a "match" between those professional associations and corresponding academic bases which will

have a high degree of probability of achieving the goals of collaboration.

The selection of candidates for collaboration is a dynamic process involving four progressive stages: identification, exploration, institutionalization, and confirmation. In each phase a set of criteria is applied to the academic and professional association subsystems. The identification stage sets forth basic criteria that reduce the total number of existing professions to a manageable number for further consideration. The exploration stage focuses on detailed information about the current status and continuing professional education orientation of a profession and its academic bases. Criteria in the institutionalization stage raise questions about the likelihood that the professional and academic bases will be able to maintain a relationship over an extended period. The final stage, confirmation, involves identifying the professions' and the academic bases' actual commitment of resources to the collaborative effort.

The term "criteria" is used loosely and the criteria items are not to be taken in any absolute sense. The thirty criteria we devised were developed to guide rather than determine the selection process. Generally speaking, they are part of the identification and exploration phases of the selection process for collaboration. The criteria for the remaining two phases, institutionalization and commitment, can be subsumed under the agreement element of our approach to collaboration.

The key criteria which we are employing as part of the selection process for university/professional association collaboration can be viewed as motivators and determinants. Motivating criteria are those that make collaboration seem generally attractive. One such criterion

is a common goal which, as noted previously, does exist in some cases since both the university and professional associations are concerned with the competent provision of service by professionals to the public. Another motivator is resource scarcity. For the university, this might be lack of students or lack of staff to address all the issues involved in providing education for competency; for a professional association it might take the form of limited continuing professional education capabilities.

Determinants are those factors that make collaboration particularly attractive or compelling. Domain consensus is an example. Professional associations interested in ensuring competency but not in providing numerous programs and universities interested in providing programs are much more likely to collaborate than are professional associations and universities which are both heavily committed to providing programs. Complementary resources are another example of determinant criteria. Well-staffed professional associations which can deal with all aspects of the competency issue including the development of assessment instruments and programs are less likely to join collaborative arrangements than are professional associations without such capabilities.

Operationalization of Collaboration Agreement

The climate, motivations for, and determinants of collaboration which lead to identification of the collaborating parties are necessary but not sufficient conditions. The problems of determining the form of the agreement to collaborate and the linkages to carry out the collaborative efforts remain.

Agreement Elements. We previously noted that interaction between organizations is based on some implicit or explicit agreement and that the agreement consists of a number of different elements. Each of these elements must be carefully considered and specified because they affect the form the agreement takes. In our project, we are particularly concerned with two elements, the symmetry of the relationship and the commitment of resources. Since both parties are expected to endorse the project as well as its goals, it is paramount that both perceive benefits. We believe these benefits are implicit in the goals of this project, which involves the creation of practice oriented continuing education programs to help practitioners maintain professional competence. To achieve these goals both parties must contribute resources. The basic resources to be contributed are expertise, a significant amount of time, and the reputation or image of both organizations. The intensity of the resource commitment is relatively high on the part of both the academic bases and the professional association and constitutes a major rather than a minor commitment. It is also important to note that the units of exchange, primarily expertise and professional judgment, are non-standardized.

The Agreement. Given the character of the elements, we believe that the agreement must be a formalized one and that it must occur at high levels of both organizations. Significant resource commitments are not likely to be made on an informal basis or by lower echelon officials. In addition, the process for carrying out the agreement, in our project the Practice Audit Model, must be endorsed by each party. Finally, the non-standardized nature of the units being exchanged means that there is much room for misunderstanding in the exchange

relationship. Unless official sanction is given to the entire effort, a breakdown of the relationship is quite possible. The agreement then must be based on a mutually accepted set of responsibilities for each party and a statement of the source and amount of resources to be committed in a given time frame. It is for these reasons that we believe that the terms of the agreement must be officially approved at the upper levels of the university administration and at the governing body level of the professional association.

Providing for the Interaction Process or Linkage

The final issue to be addressed is how the interaction will take place. The agreement states that interaction will occur but the agreement is not interaction per se. For our project, the vehicle through which collaboration will be achieved is a profession team, part of the overall Practice Audit Model which provides our method or structure for collaboration. A profession team has six to ten members drawn from the academic base faculty members, the profession's national and state associations, our project staff, and any other groups that may have particular information or skills that are relevant to a given stage of the project. Prior to the formation of this profession team, however, it is necessary for the project staff to initiate the overall collaborative effort. Thus, the project staff serves two functions: it carries out the selection process which leads to an agreement to collaborate, and works with the other members of the profession team to carry out the goals of collaboration.

The major task of the profession team and the reason for collaboration is the development of practice oriented continuing

professional education programs; however, there is no formula for producing such a product. In addition, each profession team member is expected to contribute his expertise to the effort but expertise cannot be standardized. As a result, we see the profession team as being a collegial body with shared decision making authority and few fixed rules to guide its behavior. This means that there is a high potential for conflict within the team. We believe, however, that the seven phase Practice Audit Model through which the profession team will work and the common agreement on the goals to be achieved will help reduce conflict. In addition, because the sanction for the profession team comes from the governance levels of the university and professional associations, it is anticipated that the long-term commitment to achieve the goals of collaboration will be maintained. Even with the potential problems, we believe the synergy of the group can produce better results than either party acting alone.

Summary

In this section we have operationalized the concepts behind our view of collaborative agreements by considering them in terms of interaction between the university and professional associations. The primary goal of this collaboration is to develop programs to maintain and enhance the competency of practicing professionals. Resource scarcity and a growing emphasis on accountability set the climate or preconditions for such interaction. The bases for collaboration, or the motivators and determinants of the relationship, have been defined through a series of criteria which initially identify and provide the basis for the further exploration of those professional associations and

academic departments most likely to enter into and benefit from collaborative arrangements. Important elements in the collaborative agreement are the symmetry of the relationship and the commitment of resources. We believe the agreement must be a formalized one at high levels of both organizations in order to ensure resource commitment and minimize misunderstanding within the relationship. Finally, the linkage mechanism for the collaborative relationship is the formation of profession teams comprised of faculty members, representatives of national and state professional associations, project staff members, and representives of other relevant organizations.

## Process for Establishing the Collaborative Arrangement

This section again considers the five issues we see as the bases for collaborative arrangements, with discussion in terms of the activities being undertaken to identify six professions for inclusion in the Continuing Professional Education Development Project.

Establishment of collaborative arrangements for the project is not a fait accompli. The project began July 1, 1980, and has just now reached the point of finalizing the establishment of collaborative relationships with six project professions.

### Specific Form of Collaboration

As indicated earlier, a framework or format for collaboration is essential to its success. Within the context of this project, collaboration refers to the process through which the participating organizations (i.e., the University and the professional associations) achieve the goals of the project. Inherent in this process is the concept of decision-making by consensus. Thus members of each profession team, representing the various interested organizations for each profession, will decide as a group on the best means to reach the project's predetermined ends. Each profession team will not be given the opportunity to make collaboratively decisions about anything it chooses, however. Rather, the profession teams grow out of, and then carry the collaborative process through the Practice Audit Model. The Model is essentially a mechanism or framework for guiding collaboration; that is, it provides a context which places contraints on profession team activities by identifying key points where a joint decision and input from the various organizations' representatives is necessary and

important. It therefore acts as a mechanism to increase the efficiency of the profession teams by focusing their attention on certain issues while preventing them from making collaborative decisions about all possible issues. The Practice Audit Model is briefly described here, for an understanding of it is essential to an understanding of the project. More detailed information on the Model is available in a monograph describing its development (Smutz et al., 1981).

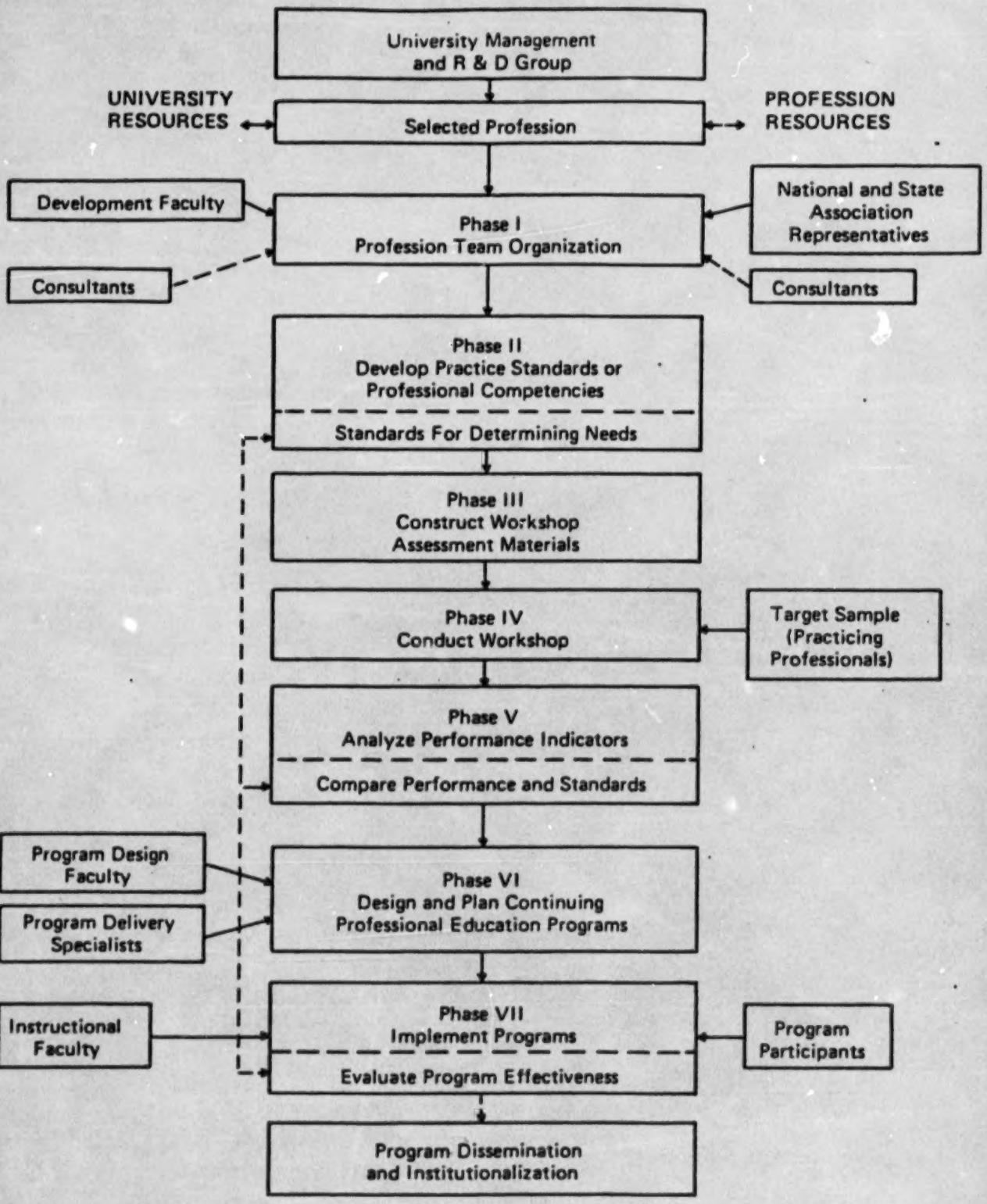
The Practice Audit Model was developed in the course of an earlier study conducted with the pharmacy profession. It is a systematic process for identifying the educational needs of practitioners and translating them into educational programs for the professional target group through a collaborative process involving subsystems of the university and the professional association.

Before beginning the collaborative process prescribed by the Model, it is necessary to have a catalytic agent in place, something or someone to initiate activity and provide the necessary components to make things happen. In this case, the project staff serves this function.

Figure 2 displays the seven phases through which the collaborative process moves.

Phase I provides for the organization of the profession team, which will guide the development of practice-oriented continuing education programs for the particular profession under consideration; there is a separate profession team for each discipline to be addressed. Each team includes representatives of the professional association, academic base, project staff, and others as appropriate.

Phase II calls for the identification of practice standards or professional competencies. The motivation behind the development of




Practice Audit Model

Figure 2

practice-oriented continuing professional education is to assist practitioners in remaining competent. In order to do this, it is essential that the tasks and standards of practice be defined; what is it that defines the competent practitioner? Exploration of potential project professions indicates that a relatively small number of professions have developed practice standards or conducted role delineation studies. As might be expected, one of the selection criteria relates to the existence of standards of practice. As work with these professions takes place in Phase II, what has been done in a given profession will be adapted for use in this project.

The construction of assessment materials occurs in Phase III. Utilizing the practice standards identified in Phase II, profession team members will develop instruments and procedures to identify the practice-related educational needs of a sample group of practitioners. A range of assessment techniques will be necessary to measure not only knowledge, but also performance.

An assessment workshop is conducted in Phase IV. The instruments developed in Phase III are used to measure practitioners' ability to perform tasks identified as necessary for competent practice. A sample population is selected so that the results of the assessment will be generalizable to the statewide group of practitioners being addressed.

Assessment results are analyzed in Phase V, and practice-oriented educational needs are identified by comparing professionals' performance in the assessment workshop to the standards established earlier. The discrepancy between the two defines the areas to be addressed by continuing education programming.

Continuing education programs are planned and developed in Phase

VI. Among the issues to be considered are those of content, form of instruction, delivery mechanisms, and program promotion.

Phase VII, the final Model phase, is concerned with implementing and evaluating the programs developed in Phase VI.

At this point the process reverts back to Phase II—this is an ongoing process, a fact which is of major importance. All needs of practicing professionals are not going to be covered in one journey through the Model, new needs will arise, and definitions of competent practice may change. It is also significant to note that information dissemination and institutionalization of the process are major components of the Model.

## Foundations of University/Professional Association Collaboration

There is a strong history of continuing professional education at Penn State—career education has for many decades been recognized as one of the three major focuses of the University's continuing education operation, along with personal development and community service. In 1976, a committee was appointed to investigate the University's role in continuing professional education, to assess what had been done and to make recommendations for future activities.

One of the committee's major recommendations was that the University establish collaborative relationships with professional associations, an explicit acknowledgement that universities alone do not possess all of the resources necessary to develop meaningful continuing professional education programs. Another recommendation germane to this one was the suggestion that a compilation of professional and occupational practice requirements be developed, to provide an

understanding of not only the requirements to enter and remain in practice, but also the background of the individual professions, and their "climate" for continuing education. The first edition of Professional and Occupational Practice Requirements (Queeney and Manz, 1980) provided information on fifty-five professions and occupations as practiced in Pennsylvania. It was from these professions that the groups to be considered for inclusion in the current project were later drawn.

Thus while the University was responding to some environmental changes, the professional associations were also experiencing some changes and external influences that would make them open to collaborative relationships. While there are wide variations from profession to profession and from location to location across the country, professions as a group, and hence the associations that represent them, have been subject to increasing demands for evidence of competence. Consumers, regulatory agencies, and government have produced a groundswell of questions, skepticism, and challenges regarding the competence of professional practitioners from all fields. In some cases, criticism of a profession has come from one of its own, as we have witnessed with lawyers, where the Chief Justice of the United States Supreme Court cited what he views as "widespread incompetency" within his profession.

As professional associations have pondered the problems raised by these accusations, some have taken first steps toward a number of potentially corrective measures. Some are addressing the issue of an appropriate basis for professional competency through role delineation studies. Many have turned to continuing education, in some cases almost

as a panacea. However, within many professions, the associations realize that they do not have the resources necessary to affect a solution alone. Hence, the environment is conducive to some form of university/professional association interaction in the development and provision of continuing professional education programs.

The Search for Appropriate Organization Bases

The search for appropriate organization bases began with an identification stage, involving examination of the criteria as they are met by the fifty-five professions and occupations identified in an earlier study. While a methodical approach to this task was developed, it was found that this was not always to be an orderly, step-by-step procedure. Some academic units within the University and professional associations learned of the project from announcements of the grant or by word-of-mouth, and they contacted project staff members to express interest in the project. These inquiries were fitted into the methodical process as completely as possible.

The exploration stage has occurred in two steps. First, project staff members have looked into the academic bases within the University, and then moved on to exploration of the state and national professional associations. After tentatively identifying professional areas for further consideration, staff members met with the deans of each of the involved colleges. These meetings had two purposes: to solicit recommendations regarding the professions being considered and any others the deans might suggest, and to seek sanctions to proceed with the explorations. From the deans, project staff members went to department chairmen and faculty members. It was at this level that it

was first possible to delve into viewing a given profession in light of the criteria established for selection, for the level of university subsystems with which collaboration might occur had been reached.

After obtaining satisfaction that the criteria were met to this point, project staff members moved on to the professional associations, and are still in this phase. They are moving through the same processes with both state and national professional associations, seeking sanctions and suggestions at the highest levels, then discussing specifics with those individuals representing the subsystems of the organizations, such as the continuing education function, with which collaboration might take place.

It is apparent that a variety of perceived benefits motivate interest in the project. One academic department, conscious of the need to maintain its image as a top department in the country, sees this project as an opportunity to get in on the ground floor of an emerging concern, the provision of practice-oriented continuing professional education to meet a reregistration requirement. A professional association, having recently completed a study of practice standards, views the project as an opportunity to put their findings to work.

Specific determinants serve as a weeding-out process in some cases. For example, although landscape architecture initiated contact with the project, is completing a role delineation study, and expressed strong interest in participating in the project, the 200 landscape architects in Pennsylvania do not provide a critical mass for whom to produce programs. Conversely, nursing, with 60,000 practitioners in Pennsylvania, does meet the critical mass criteria. The issue of practice standards is one on which the timing has to be right. Nuclear

engineering, as a new and growing profession, does not feel ready to develop standards of practice, while dietetics and architecture are just completing role delineation studies which they would like very much to apply.

In the area of domain consensus, it was expected that those professional associations that do not actually provide large amounts of continuing education for their members, or do not view it as a bread-and-butter item, would have goals complementary to those of the project and hence would be more interested in working with a university than would a professional association which is a major continuing education provider. Whether or not this is true remains to be seen; it has been learned that associations which do not view provision of programs as a major thrust are positively inclined toward the project. It is not yet known whether the converse is true.

Establishment of a Collaborative Arrangement

In the commitment stage, long-term obligations are being requested. This is a five-year project, with the actual work with each profession expected to take from three to four years. The commitment being sought is somewhat intangible, in that what is asked for is a person's time, rather than something easily defined such as a specific number of dollars. While the request is that a specific individual, or individuals, be committed to work with the project, the commitment has to come not from that person, but from the top. It is the dean and department head who must agree that the faculty member will participate, and the executive director and board of the professional association who sanction the participation of a representative.

A legal document has been drawn up to formalize these relationships. The professional association executive indicates assignment of personnel to the project and agreement to support the individual's participation in signing the agreement. The University representative does likewise. This is of necessity a highly formalized agreement due to the nature of the resources and the relationships we are striving to establish.

The selection of the individuals who are to form the profession team can be a somewhat sensitive issue. Informal criteria for profession team members from both academic departments and professional associations have been established. Faculty members are expected to have a demonstrated interest in continuing education, familiarity with practice of the professions (as opposed to exposure to only classroom teaching), and full-time employment with the University. The individual selected to represent a professional association should be active in the organization's effort to define practice standards or in the development of continuing education programs.

Creating an Appropriate Linkage Mechanism

Once the professions have been selected and the team members identified, the task of activating the profession teams will remain. It is important that each team develop its own method of operating and means of resolving conflict, and that project staff members function as members of the teams, not as conveners or as leaders. For these reasons, each profession team will be launched under the guidance of a group process consultant who will work with the team initially, helping it begin its task and, more importantly, develop structure.

The Practice Audit Model and the deadlines established by the project timeline that grew out of it will drive the collaborative process and provide a structure to minimize conflict. However, they alone will not provide the mechanism to make each profession team work. Each team will have to create an authority within it, or create other means of resolving conflict.

Summary

In this section we have described how the concepts underlying collaborative relationships are being applied through the current project, using the Practice Audit Model as the specific framework within which collaboration will occur. We see an increasing emphasis on professional competence and Penn State's ongoing interest in providing continuing professional education as a conducive climate for initiating collaborative relationships and we have explored specific determinants which identify professional associations and academic departments to engage in such relationships. Although no formal agreements have yet been established, we have outlined specific elements for the agreements and have identified profession teams as the linkage mechanism through which the collaborative work will be carried out.

We shall be going through this process six times, with six different professions. While we would all like 100 percent success, we are realistic enough to expect that the process may not fully succeed six times; we shall probably meet with varying levels of success. However, as H. L. Enarson, writing in 1977 to encourage collaboration, commented, ". . . the danger of contamination is slight, the possible dividends great."

## Bibliography

Aiken, M. and Hage, J. "Organizational Interdependence and Interorganizational Structure." American Sociological Review 33 (1968): 912-930.

Baker, F. "An Open-System Approach to the Study of Mental Hospitals in Transition." Community Mental Health Journal 5 (1969): 403-412.

Beer, S. Heart of Enterprise. John Wiley and Sons, 1979.

Bellin, L. E. "Discussion of William J. Reid's Paper, 'Interorganizational Cooperation: A Review and Critique of Current Theory.'" In Inter-Organizational Research in Health: Conference Proceedings, edited by P. E. White and G. J. Vlasak, pp. 84-101. Washington, D.C.: National Center for Health Services Research and Development, 1970.

Black, B. and Kase, H. "Interagency Cooperation in Rehabilition and Mental Health. Social Service Review 37 (1963): 26-32.

Clark, B. "Interorganizational Patterns in Education." Administrative Science Quarterly 10 (1965): 224-237.

Cogan, M. L. "Toward a Definition of Profession." Harvard Educational Review 23 (No. 3, 1953): 33-50.

Cummings, T. "Interorganization Theory and Organization Development." In Systems Theory for Organization Development, edited by T. Cumming's, pp. 323-338. New York: John Wiley & Sons, Ltd., 1980.

Evan, W. M. "The Organization Set: Toward a Theory of Interorganizational Relations." In Approaches to Organizational Design, edited by J. D. Thompson, pp. 173-191. Pittsburgh: University of Pittsburgh Press, 1966.

Guetzkow, H. "Relations Among Organizations." In Studies in Behavior in Organizations, edited by R. Bowers, pp. 13-44. Athens, GA: University of Georgia Press, 1966.

Hall, R. H.; Clark, J. P.; Giordano, P. C.; Johnson, P. V.; and Vanroekel, M. "Patterns of Interorganizational Relationships." Administrative Science Quarterly 22 (1977): 457-474.

Hall, R. H. and Clark, J. P. "Problems in the Study of Interorganizational Relationship." Organization and Administrative Sciences 5 (1974): 45-66.

Houle, C. O. Continuing Learning in the Professions. San Francisco: Jossey-Bass Publishers, 1980.

Kast, F. E. and Rosenzweig, J. E. "General Systems Theory: Applications for Organization and Management." Academy of Management Journal 15 (1972): 447-463.

Katz, D. and Kahn, R. L. The Social Psychology of Organizations. New York: John Wiley and Sons, Ltd., 1965.

Lefton, M. "Client Characteristics and Organizational Functioning: Interorganizational Focus." In Modern Organizational Theory, edited by A. R. Negandhi, pp. 160-173, Kent, OH: Kent State University Press, 1973.

Lefton, M. "Client Characteristics and Structural Outcomes: Toward the Specification of Linkages." In Organization and Clients: Essays in the Sociology of Service, edited by W. R. Rosengren and M. Lefton, pp. 17-36. Columbus, OH: Charles E. Merrill Publishing Co., 1970.

Levine, S. and White, P. "Exchange as a Conceptual Framework for the Study of Interorganizational Relationships." Administrative Science Quarterly 5 (1961): 583-601.

Lewis, C. E. "Discussion of Basil J. F. Mott's Paper, 'Coordination and Inter-Organizational Relations in Health.'" In Inter-Organizational Research in Health: Conference Proceedings, edited by P. E. White and G. J. Vlasak, pp. 70-77. Washington, D.C.: National Center for Health Services Research and Development, 1970.

Litwak, E. and Hylton, L. F. "Interorganizational Analysis: A Hypothesis on Coordinating Agencies." Administrative Science Quarterly 6 (1962): 395-420.

Litwak, E. and Rothman, J. "Towards the Theory and Practice of Coordination Between Formal Organizations." In Organizations and Clients: Essays in the Sociology of Service, edited by W. R. Rosengren and M. Lefton, pp. 137-186. Columbus, OH: Charles E. Merrill Publishing Co., 1970.

Marrett, C. B. "On the Specification of Interorganization Dimensions." Sociology and Social Research 61 (1971): 83-99.

Molnar, J. J. "Comparative Organizational Properties and Interorganizational Interdependence." Sociology and Social Research 63 (1978): 24-48.

Mott, B. "Coordination and Inter-Organizational Relations in Health." In Interorganizational Research in Health: Conference Proceedings, edited by P. White and G. Vlasak, pp. 55-69. Washington, D.C.: National Center for Health Services Research and Development, 1970.

Negandhi, A. R., editor. Interorganization Theory. Kent, Ohio: Kent State University Press, 1975.

Queeney, D. S. and Manz, K. P. Professional and Occupational Practice Requirements: A Continuing Professional Education Series. University Park, PA: Planning Studies in Continuing Education, The Pennsylvania State University, 1980.

Reid, W. J. "Interagency Coordination in Delinquency Prevention and Control." Social Service Review 38 (1964): 418-428.

Reid, W. J. "Inter-Organizational Cooperation: A Review and Critique of Current Theory." In Inter-Organizational Research in Health: Conference Proceedings, edited by P. E. White and G. J. Vlasak, pp. 84-101. Washington, D.C.: National Center for Health Service's Research and Development, 1970.

Reid, W. J. "Interorganizational Coordination in Social Welfare: A Theoretical Analysis and Intervention." In Readings in Community Organization Practice, edited by R. M. Kramer and H. Specht. Englewood Cliffs, NJ: Prentice-Hall, 1969.

Schmidt, S. M. and Kochan, T. A. "Interorganizational Relationships--Patterns and Motivations." Administrative Science Quarterly 22 (1977): 220-234.

Schermerhorn, J. R. "Determinants of Interorganizational Cooperation." Academy of Management Journal 18 (1975): 846-856.

Silverman, R. J. "Structural Determinants of Interinstitutional Cooperation in Higher Education." Research in Higher Education 3 (1975): 35-44.

Smutz, W. D.; Kalman, S. H.; Lindsay, C. A.; Pietrusko, R. G.; and Seaman, J. J. The Practice Audit Model: A Process for Continuing Professional Education Needs Assessment and Program Development. Edited by D. S. Queeney. University Park, PA: Continuing Professional Education Development Project, The Pennsylvania State University, 1981.

Thompson, J. D. "Thoughts on Inter-Organizational Relations: A Conclusion." In Inter-Organizational Research in Health: Conference Proceedings, edited by P. E. White and G. J. Vlasak, pp. 156-167. Washington, D.C.: National Center for Health Service's Research and Development, 1970.

Thompson, J. D. and McEwen, W. J. "Organizational Goals and Environment: Goal Setting as an Interaction Process." American Sociological Review 23 (1958): 23-31.

Warren, R. L. "Alternative Strategies of Inter-Agency Planning." In Inter-Organizational Research in Health: Conference Proceedings, edited by P. E. White and G. J. Vlasak, pp. 114-128. Washington, D.C.: National Center for Health Service's and Development, 1970.

Warren, R. L. "The Interorganizational Field as a Focus for Investigation." Administrative Science Quarterly 12 (1967): 396-419.

Whetten, D. A. "Interorganizational Relations: A Review of the Field." Journal of Higher Education 52 (1981): 1-27.

Zeitz, G. "Interorganizational Relationship and Social Structure: A Critique of Some Aspects of the Literature." Organization and Administrative Science 5 (1974): 131-139.

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